

SPORT ANALYTICS (SAL)

SAL 200 Selected Topics (1-6 Credits)

David B. Falk College of Sport

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable 1 times for 6 credits maximum

SAL 213 Sport Data Analysis I (3 Credits)

David B. Falk College of Sport

Analyzing and interpreting sport data through analytical procedures. Current advanced statistics will be introduced, discussed, and computed across a variety of professional and college sports.

Prereq: SAL 295

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 270 Experience Credit (1-6 Credits)

David B. Falk College of Sport

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.

Repeatable 6 times for 6 credits maximum

SAL 284 Introduction to Python for Sport Analytics (3 Credits)

David B. Falk College of Sport

Utilizing Python programming Sports Analytics students will collect, clean, and visualize sports data. Students will conduct statistical analyses of collected sports datasets, interpret, and visualize results. Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

SAL 290 Independent Study (1-6 Credits)

David B. Falk College of Sport

In-depth exploration of a problem or problems. Individual independent study based on a plan submitted by the student. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.

Repeatable

SAL 295 Research Methodology for Sport Analytics (3 Credits)

David B. Falk College of Sport

Introduction to elements of sport analytics, research methods and design, applied probability and statistics. Students will conduct research and construct papers using Excel and R to interpret sport statistical analyses.

Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 300 Selected Topics (1-6 Credits)

David B. Falk College of Sport

Exploration of a topic (to be determined) not covered by the standard curriculum but of interest to faculty and students in a particular semester. Repeatable 6 times for 6 credits maximum

SAL 313 Sport Data Analysis II (3 Credits)

David B. Falk College of Sport

Advanced econometric techniques for cross-sectional, time-series and panel (i.e., cross-sectional and time-series) data are covered. Non-linear models are considered using the generalized linear model approach. Techniques will be applied to sport analytic data across sports.

Prereq: SAL 213

Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 323 Database and Programming for Sport Analytics (3 Credits)

David B. Falk College of Sport

An introduction to computer programming within sport analytics. An emphasis on learning to code, program, package, and use modules within sport. Database management, storage, and debugging techniques will be reviewed for sport industry data.

Prereq: SAL 213 and MAT 295

SAL 333 Introduction to Sport Science Analytics (3 Credits)

David B. Falk College of Sport

Introduction to sport science and athletic injury analytics. Complex sport injury cases will be examined and analyzed using scientific articles and on-line resources.

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

SAL 358 Sport Analytics Arizona Immersion (3 Credits)

David B. Falk College of Sport

Differentiates structure within analytics departments among multiple professional sports organizations. Prepares students to compete in the baseball analytics based SABR Diamond Dollars Case Competition and attend the SABR Analytics Conference. Travel and field study course. Repeatable 2 times for 6 credits maximum

Shared Competencies: Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

SAL 366 Sport Economics II (3 Credits)

David B. Falk College of Sport

Analyzing and explaining sport issues through the lens of economic analysis. Theoretical models and applications will be discussed that relates to aspects of professional, collegiate, and amateur sports nationally and internationally.

Prereq: ECN 311 and SAL 313 and SPM 365

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 384 Advanced Python for Sport Analytics (3 Credits)*David B. Falk College of Sport*

Advanced analysis of various web scraping techniques with the specific focus of learning how to scrape sports data from various sport websites. Significant time will be spent problem solving and cleaning data from complicated sources.

Prereq: SAL 284 or IST 256

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 413 R for Sport Analytics (3 Credits)*David B. Falk College of Sport*

Analyzing and interpreting sport data through analytical procedures in the software program R. Current advanced statistics and techniques will be covered using a variety of sport databases.

Coreq: SAL 213

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Information Literacy and Technological Agility (<https://coursecatalog.syracuse.edu/shared-competencies/information-literacy-and-technological-agility/>)

SAL 440 Themes in Sport and Global Impact (3 Credits)*David B. Falk College of Sport*

Cross-listed with SPM 440

Students will study the global impact of sport, history, and business implications on a particular region or country. Analyzing sport from a variety of perspectives: lectures, readings, field trips, and case studies of sport organizations.

Repeatable 2 times for 6 credits maximum

Shared Competencies: Critical and Creative Thinking (<https://coursecatalog.syracuse.edu/shared-competencies/critical-and-creative-thinking/>); Civic and Global Responsibility (<https://coursecatalog.syracuse.edu/shared-competencies/civic-and-global-responsibility/>)

SAL 441 Themes in Sport and Global Impact, Travel to Country (0 Credits)*David B. Falk College of Sport*

Cross-listed with SPM 441

Course is the travel portion of SPM/SAL 440. Students enrolled in SPM/SAL440 must register for this zero credit course in the subsequent semester for the required travel portion of the course

Repeatable 1 times for 0 credits maximum

Prereq: SPM/SAL 440

SAL 470 Experience Credit (1-6 Credits)*David B. Falk College of Sport*

Participation in a discipline or subject related experience. Student must be evaluated by written or oral reports or an examination. Permission in advance with the consent of the department chairperson, instructor, and dean. Limited to those in good academic standing.

Repeatable 6 times for 6 credits maximum

SAL 490 Independent Study (1-6 Credits)*David B. Falk College of Sport*

In-depth exploration of a problem or problems. Individual independent study upon a plan submitted by the student. Admission by consent of supervising instructor or instructors and the department.

Repeatable

SAL 495 Sport Analytics Thesis Seminar I (3 Credits)*David B. Falk College of Sport*

First course in a two semester sequence for sport analytics students which will prepare the student for their thesis project. Within this course, students will be guided to research and choose their thesis topic.

Prereq: SPM 365

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 496 Sport Analytics Thesis Seminar II (3 Credits)*David B. Falk College of Sport*

Second semester in a two semester course sequence for Sport Analytics majors who will complete an original research project within sport analytics.

Prereq: SAL 495

Shared Competencies: Scientific Inquiry and Research Skills (<https://coursecatalog.syracuse.edu/shared-competencies/scientific-inquiry-and-research-skills/>)

SAL 499 Honors Capstone Project (1-3 Credits)*David B. Falk College of Sport*

Completion of an Honors Capstone Project under the supervision of a faculty member.

Repeatable 3 times for 3 credits maximum